

Successful Symptom Control May Be in the Bucket

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Half of adult asthmatics and 85% of children are allergic to environmental allergens. Unless these triggers are identified and dealt with, medication is a poor substitute for controlling symptoms that might not even be present were an effective environmental control plan in place. For example, research clearly shows that when patients allergic to dust mites reduce exposure, they are able to use less asthma/allergy medication, have fewer symptoms, better lung function and a better quality of life.

The "Trigger Bucket"

Everyone with asthma has a personalized set of triggers - things that set off symptoms. Like filling a bucket, they have an additive effect. This explains why a patient can visit her friend with the cockateel on one occasion, but end up reaching for albuterol on the next.

Keeping the level in the trigger bucket as low as possible is an important step in keeping symptoms at bay. For example, if a patient is mildly allergic to dust mites, exposure to them alone may not trigger symptoms. (Patients may not even KNOW they are allergic to dust mites unless they have been allergy tested.) However, if the airway inflammation triggered by mites is added to by exposure to irritants, cold air, strenuous activity or whatever gets the patient's asthma going, the combined effect can overflow their "bucket" triggering symptoms. The patient may blame the last trigger only, when in truth it was everything combined.

This is actually great news because it provides more opportunities to control symptoms through controlling exposure to various triggers. For example, parents of asthmatic children, even those obviously upset over their child's frequent illnesses will be noticeably scented with perfume, lotions or other cosmetic products when they come into our Asthma Center. They are desperate to help their children, yet they have not made the connection between their child's symptoms and exposure to the allergen or irritant they are walking around with. As perfume alone may not be enough to trigger symptoms, the parent may falsely believe that fragrances are not a factor. However, when you understand the "bucket theory", the relationship becomes more clear.

The bottom line is for patients to identify their personal set of asthma triggers, avoid exposure whenever possible and use strategies to control the amount of exposure or response if complete avoidance is not realistic. Actively involving patients in this process is critical for successful preventive management.

"Asthma Trigger Bucket" The following example shows how the trigger bucket might fill for someone allergic to dust mites and is then exposed to irritant/allergens.



1. **Asthma:** It begins with a predisposition to have sensitive airways.



2. **Dust mites:** The bucket begins to fill. (No noticeable symptoms yet.)



3. **Wood smoke:** It's a cold, rainy evening, so you build a fire in the fireplace.



4. **Perfume:** The next day, a mildly fragrant friend visits. It's enough to overflow the bucket and only now are symptoms noticed.